



# SPYWOLF

## Security Audit Report



Completed on  
**February 8, 2023**

@SPYWOLFNETWORK



@SPYWOLFNETWORK



SPYWOLF.CO





# OVERVIEW

This audit has been prepared for **OxAI** to review the main aspects of the project to help investors make an informative decision during their research process.

You will find a summarized review of the following key points:

- ✓ Contract's source code
- ✓ Owners' wallets
- ✓ Tokenomics
- ✓ Team transparency and goals
- ✓ Website's age, code, security and UX
- ✓ Whitepaper and roadmap
- ✓ Social media & online presence

“

*The results of this audit are purely based on the team's evaluation and does not guarantee nor reflect the projects outcome and goal*

”

- SPYWOLF Team -





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# OxAI



## PROJECT DESCRIPTION

### **According to their website:**

"OxAI goal is to enable access to AI computation for anyone in the world, regardless of their resources or location. OxAI will bridge the gap between AI and blockchain to offer powerful AI-based services without compromising data privacy or security."

**Release Date:** Launched in February 07, 2023

**Category:** AI



# CONTRACT INFO

Token Name

OxAI

Symbol

OXAI

Contract Address

0x428dca9537116148616a5A3E44035Af17238Fe9d

Network

Ethereum

Language

Solidity

Deployment Date

Nov 10, 2022

Verified?

Yes

Total Supply

1,000,000,000,000

Status

Launched

## TAXES

Buy Tax  
**none**

Sell Tax  
**none**

## Our Contract Review Process

The contract review process pays special attention to the following:

- ✓ Testing the smart contracts against both common and uncommon vulnerabilities
- ✓ Assessing the codebase to ensure compliance with current best practices and industry standards.
- ✓ Ensuring contract logic meets the specifications and intentions of the client.
- ✓ Cross referencing contract structure and implementation against similar smart contracts produced by industry leaders.
- ✓ Thorough line-by-line manual review of the entire codebase by industry experts.

### Blockchain security tools used:

- OpenZeppelin
- Mythril
- Solidity Compiler
- Hardhat





# CURRENT STATS

(As of February 08, 2023)



Liquidity

1,215,955 USDC



Burn

No burnt tokens

Status:  
Launched!

MaxTxAmount  
No limit

DEX:  
UniSwap

LP Address(es)

0x65717fe021EA67801d1088CC80099004B05B6460

98.9% Locked - Unlocks at 08/03/2023  
<https://app.unicrypt.network/amm/uni-v2/pair/0x65717fe021ea67801d1088cc80099004b05b6460>



## TOKEN TRANSFERS STATS

Transfer Count	2882
Uniq Senders	465
Uniq Receivers	903
Total Amount	5307933534785.219 OXAI
Median Transfer Amount	162524437.1312338 OXAI
Average Transfer Amount	1841753481.8824492 OXAI
First transfer date	2023-02-06
Last transfer date	2023-02-08
Days token transferred	3

## SMART CONTRACT STATS

Calls Count	9363
External calls	607
Internal calls	8756
Transactions count	3201
Uniq Callers	582
Days contract called	3
Last transaction time	2023-02-08 16:43:59 UTC
Created	2023-02-06 14:58:47 UTC
Create TX	0x5a6bac44112eefae3af83f2d00851199b0333cb913ba0cffb0a22ed9bf3ae75d
Creator	0xf80876b671796a284c22474a9a74c2e698cfc9cb



# VULNERABILITY CHECK

Design Logic	Passed
Compiler warnings.	Passed
Private user data leaks	Passed
Timestamp dependence	Passed
Integer overflow and underflow	Passed
Race conditions and reentrancy. Cross-function race conditions	Passed
Possible delays in data delivery	Passed
Oracle calls	Passed
Front running	Passed
DoS with Revert	Passed
DoS with block gas limit	Passed
Methods execution permissions	Passed
Economy model	Passed
Impact of the exchange rate on the logic	Passed
Malicious Event log	Passed
Scoping and declarations	Passed
Uninitialized storage pointers	Passed
Arithmetic accuracy	Passed
Cross-function race conditions	Passed
Safe Zeppelin module	Passed
Fallback function security	Passed





# THREAT LEVELS

When performing smart contract audits, our specialists look for known vulnerabilities as well as logical and access control issues within the code. The exploitation of these issues by malicious actors may cause serious financial damage to projects that failed to get an audit in time. We categorize these vulnerabilities by the following levels:

## High Risk

---

Issues on this level are critical to the smart contract's performance/functionality and should be fixed before moving to a live environment.

## Medium Risk

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Issues on this level are critical to the smart contract's performance/functionality and should be fixed before moving to a live environment.

## Low Risk

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Issues on this level are minor details and warning that can remain unfixed.

## Informational

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Information level is to offer suggestions for improvement of efficacy or security for features with a risk free factor.



# FOUND THREATS

## ⚠ Low Risk

If any malicious actor manages to obtain signatures from user's account, they will be able to drain contract's native token from their wallets.

```
function permit(
    address owner,
    address spender,
    uint256 value,
    uint256 deadline,
    uint8 v,
    bytes32 r,
    bytes32 s
) public virtual {
    require(deadline >= block.timestamp, "PERMIT_DEADLINE_EXPIRED");

    // Unchecked because the only math done is incrementing
    // the owner's nonce which cannot realistically overflow.
    unchecked {
        address recoveredAddress = ecrecover(
            keccak256(
                abi.encodePacked(
                    "\x19\x01",
                    DOMAIN_SEPARATOR(),
                    keccak256(
                        abi.encode(
                            keccak256(
                                "Permit(address owner,address spender,uint256 value,uint256 nonce,uint256 deadline)"
                            ),
                            owner,
                            spender,
                            value,
                            nonces[owner]++,
                            deadline
                        )
                    )
                )
            ),
            v,
            r,
            s
        );

        require(recoveredAddress != address(0) && recoveredAddress == owner, "INVALID_SIGNER");

        allowance[recoveredAddress][spender] = value;
    }
}
```

- Recommendation:
  - Users should watch carefully what they sign with their wallets.



## Informational

Project's native tokens were minted via minting contract.

Mint was possible until Monday, February 6, 2023 4:00:00 PM GMT.

launchTime = 1675699200 = Monday, February 6, 2023 4:00:00 PM GMT

Any further call to stake() function or sent ether directly in the contract will revert.

Minter contract can be found at the following address:

0xC4fBCDDb052D8fC51BE901189d5Dd6867197C7d4

4. launchTime

1675699200 uint256

```
uint256 public immutable launchTime;

receive() external payable {
    stake();
}

function stake() public payable {
    if (block.timestamp >= launchTime) {
        revert AlreadyLaunched();
    }
    staked[msg.sender] += msg.value;
    totalStaked += msg.value;
    emit Staked(msg.sender, msg.value);
}

function withdraw() external {
    if (block.timestamp < launchTime) {
        revert NotLaunched();
    }
    uint256 amount = staked[msg.sender];
    staked[msg.sender] = 0;
    (bool success,) = msg.sender.call{value: amount}("");
    require(success, "withdraw failed");
    oxai.mint(msg.sender, amount * distributeAmount / totalStaked);
    emit Withdrawn(msg.sender, amount);
}
```



## Informational

Minter contract can mint new tokens and transfer the minting role to another address.

The current minter contract do not have transfer minter role functionality and cannot mint new tokens because 'launchTime' is already expired.

launchTime = 1675699200 = Monday, February 6, 2023 4:00:00 PM GMT

4. launchTime

1675699200 uint256

```
function mint(address to, uint256 amount) external {
    if (msg.sender != minter) {
        revert NotMinter();
    }
    _mint(to, amount);
}

function transferMinter(address _newMinter) external {
    if (msg.sender != minter) {
        revert NotMinter();
    }
    minter = _newMinter;
}
```



RECOMMENDATIONS FOR

# GOOD PRACTICES

---

1

Consider fundamental tradeoffs

2

Be attentive to blockchain properties

3

Ensure careful rollouts

4

Keep contracts simple

5

Stay up to date and track development

## OxAI

### GOOD PRACTICES FOUND

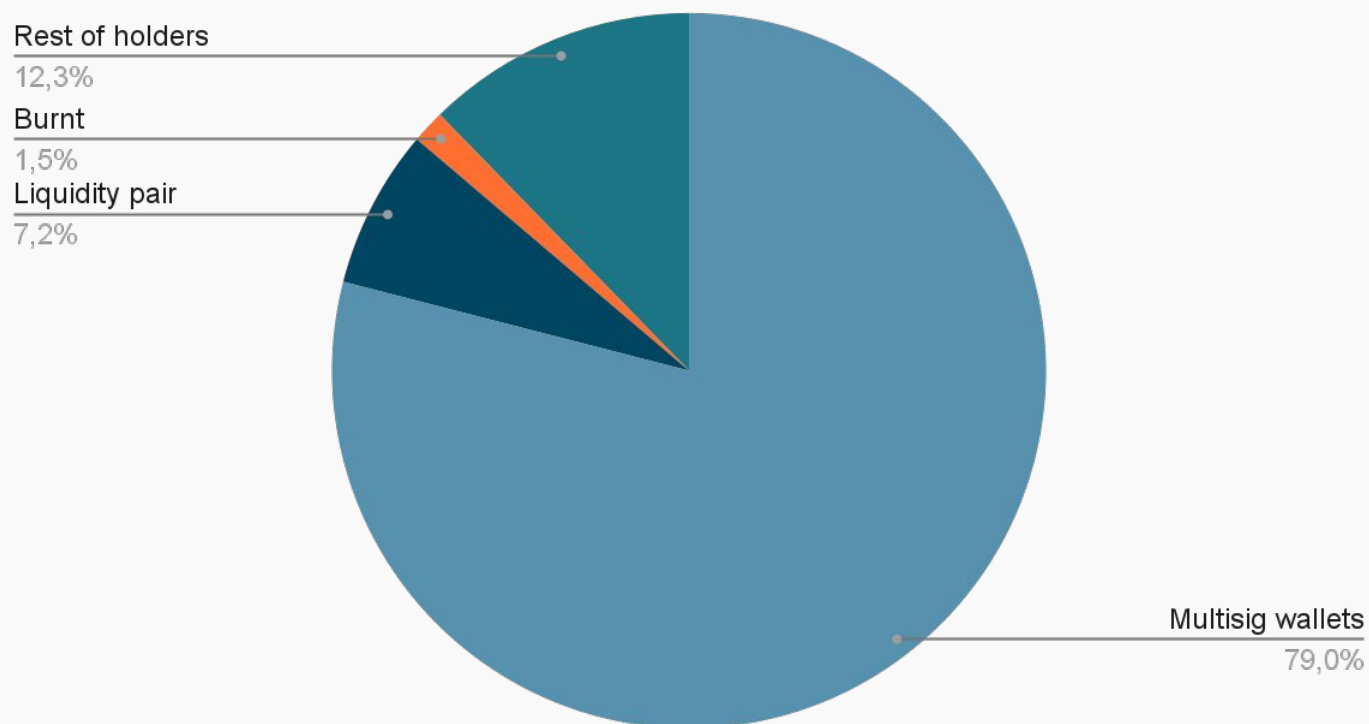
- ✓ The owner cannot mint new tokens after deployment
- ✓ The owner cannot stop or pause the contract
- ✓ The owner cannot set a transaction limit
- ✓ The smart contract utilizes "SafeMath" to prevent overflows



## Current distribution according to Etherscan:

- 79% - In 4 multisig wallets
- 1.5% - Burnt
- 7.2% - Liquidity pair
- 12.3% - Rest of holders

### Tokens distribution



*Glimpse on the project's initial tokenomics can be found in their whitepaper:*  
<https://docs.oxai.com/oxai/tokenomics>

TOKENOMICS





# THE TEAM

The team has privately doxxed to SPYWOLF by completing the following KYC requirements:

- ID Verification
- Video statement
- Video interview with devs
- Owner's wallet verification

## KYC INFORMATION

Issuer

SPYWOLF

Members KYC'd



KYC Date

Feb 8, 2023

Format

Image

Certificate Link

[https://github.com/SpWyolfNetwork/KYCs/blob/main/KYC\\_\\_OxAl\\_0x428dca9537116148616a5A3E44035Af17238Fe9d.png](https://github.com/SpWyolfNetwork/KYCs/blob/main/KYC__OxAl_0x428dca9537116148616a5A3E44035Af17238Fe9d.png)





# WEBSITE

**Website URL**  
<https://oxai.com/>

**Domain Registry**  
<https://www.epik.com>

**Domain Expiration**  
Expires on 2023-08-06

**Technical SEO Test**  
Passed

**Security Test**  
Passed. SSL certificate present

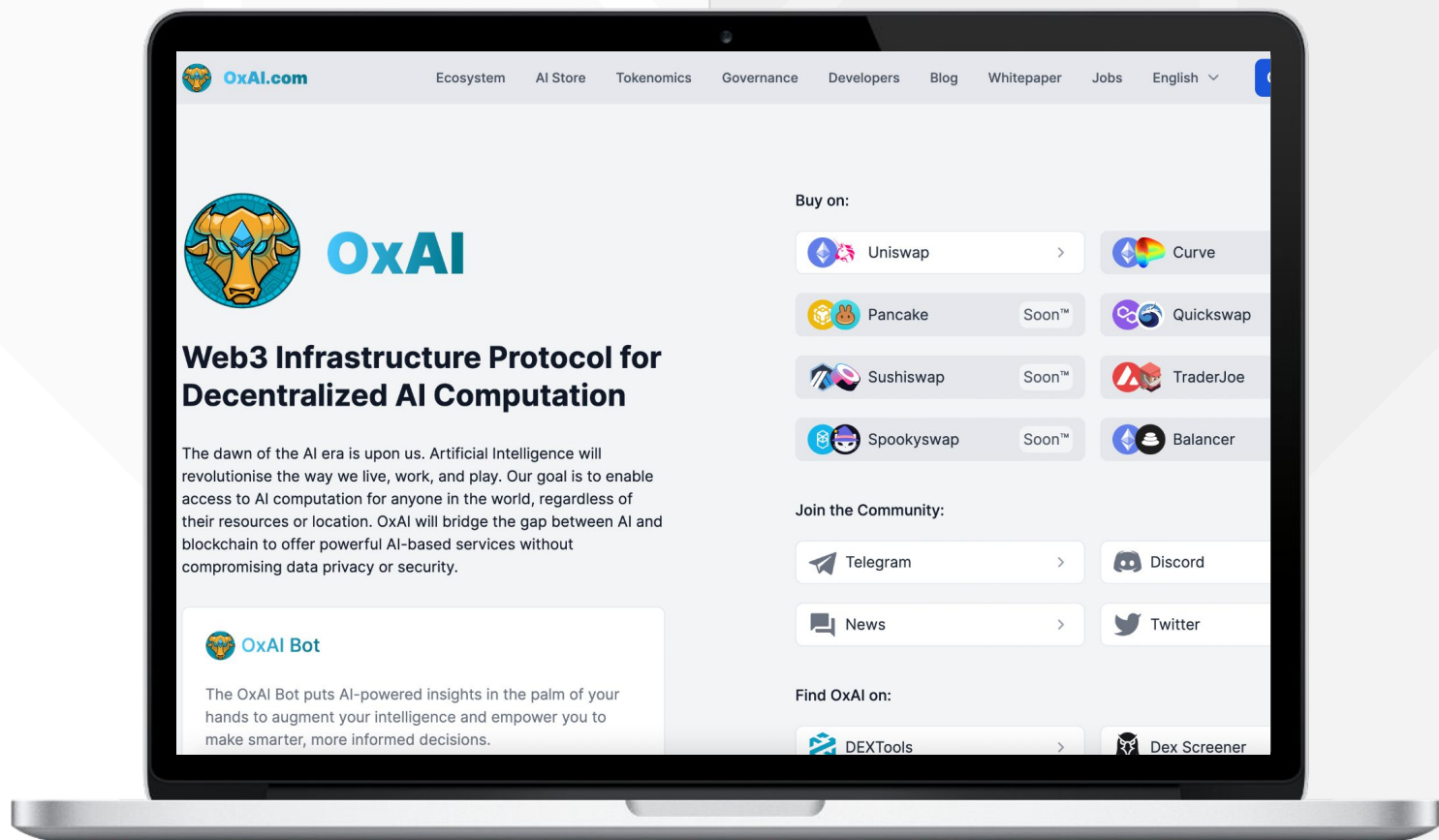
**Design**  
Very nice color scheme,  
appropriate graphics and  
overall layout.

**Content**  
The information helps new  
investors understand what  
the product does right away.  
No grammar mistakes found  
.

**Whitepaper**  
Well written, explanatory.

**Roadmap**  
Goals set without time  
frames.

**Mobile-friendly?**  
Yes



# oxai.com

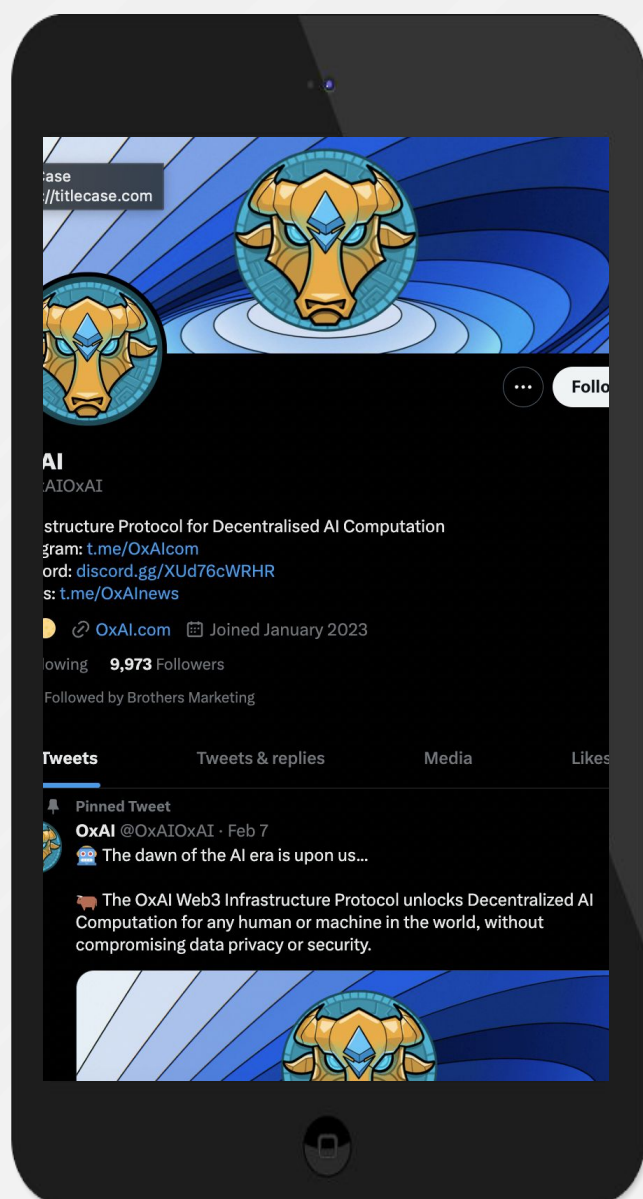


# SOCIAL MEDIA & ONLINE PRESENCE



## ANALYSIS

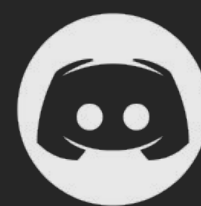
Project's social media community is active and consisted with organic users.



**Twitter**

@OxAI

- 9 971 followers
- Active
- Posts frequently



**Discord**

<https://discord.com/invite/XUd76cWRHR>

- 1 836 members
- Active members
- Active mods



**Telegram**

@OxAI

- 8 933 members
- Active members
- Active mods



**Medium**

- Not available



# SPYWOLF

## CRYPTO SECURITY

Audits | KYCs | dApps  
Contract Development

# ABOUT US

We are a growing crypto security agency offering audits, KYCs and consulting services for some of the top names in the crypto industry.

- ✓ OVER 400 SUCCESSFUL CLIENTS
- ✓ MORE THAN 500 SCAMS EXPOSED
- ✓ MILLIONS SAVED IN POTENTIAL FRAUD
- ✓ PARTNERSHIPS WITH TOP LAUNCHPADS, INFLUENCERS AND CRYPTO PROJECTS
- ✓ CONSTANTLY BUILDING TOOLS TO HELP INVESTORS DO BETTER RESEARCH

To hire us, reach out to  
[contact@spywolf.co](mailto:contact@spywolf.co) or  
[t.me/joe\\_SpyWolf](https://t.me/joe_SpyWolf)

## FIND US ONLINE



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# Disclaimer

This report shows findings based on our limited project analysis, following good industry practice from the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, overall social media and website presence and team transparency details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report.

While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the disclaimer below – please make sure to read it in full.

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No applications were reviewed for security. No product code has been reviewed.